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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,313	02/12/2002	Shingo Kawasaki	500.41132 X00	3717

20457 7590 04/21/2006

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EXAMINER

RAMIREZ, JOHN FERNANDO

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/049,313	KAWASAKI ET AL.	
	Examiner	Art Unit	
	John F. Ramirez	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on ____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-14 is/are pending in the application.

 4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) ☐ Claim(s) ____ is/are allowed.

6) ☒ Claim(s) 1-14 is/are rejected.

7) ☐ Claim(s) ____ is/are objected to.

8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

 a) ☒ All b) ☐ Some * c) ☐ None of:

 1. ☒ Certified copies of the priority documents have been received.

 2. ☐ Certified copies of the priority documents have been received in Application No. ____.

 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 02/12/02.

4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. ____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Shahidi (US 6,591,130).

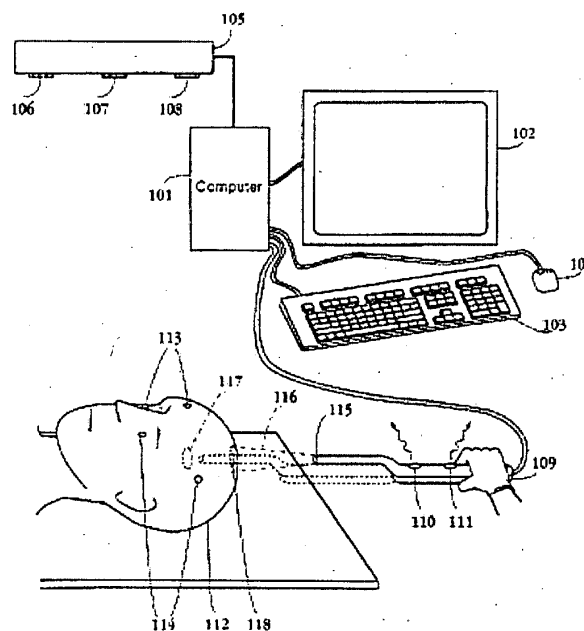


Fig. 1

The Shahidi patent shows in Figure 1 a biological light measuring instrument comprising means for irradiating light beams (elements 110, 111) from a plurality light

irradiation positions to a subject (Fig. 1, element 109), light detection (element 105) means for detecting light beams irradiated from said plurality of light irradiation positions and passing through the inside of said subject at a plurality of detection positions arranged near positions (see column 5, lines 51-59), and signal processing means for preparing topographic image representing ecological information about inside of said subject by using quantities of light detected by said light detection means at the individual detection positions (column 5, line 60 - column 6, line 12), said signal processing means including: means for setting three-dimensional coordinate data indicative of the positional relation between said light irradiation and light detection positions and reference points set on said subject (see Fig. 8); means for preparing three-dimensional topographic image on the basis of said three-dimensional coordinate data; and relation detection light on said subject (see Fig. 10); means for synthesizing said three-dimensional coordinate data indicative of the positional relation between said light irradiation and light detection positions and three-dimensional coordinate data of a three-dimensional morphological image of said subject to prepare and display a synthetic image of said three-dimensional topographic image and said morphological image (see Fig. 8, steps 808-811), wherein said signal processing further includes means for arranging said three-dimensional topographic image inside said subject at a predetermined depth from the surface of said subject in said three-dimensional morphological image (see column 3, line 52-60), further comprising means for inputting three-dimensional morphological image data of said subject (see Figs. 9 and 10), wherein said morphological image according includes tomographic image, wherein said

morphological image includes a CT image, wherein said morphological image includes a MRI image (see abstract).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shahidi in view of Macvicar et al., (US 5,215,095) in further view of Culver (US 4,417,591). Shahidi teaches all the limitations of the claimed subject matter except for mentioning specifically a method of creating a topographic image in a biological light measuring instrument comprising the steps of preparing a topographic image indicative ecological information about the inside said subject by using quantities of light at individual detection positions detected by said light detection means, further comprising a step of preparing wire frame image of said subject as the three-dimensional morphological image of said subject.

However, a method of creating a topographic image in a biological light measuring instrument comprising the steps of (1) preparing a topographic image indicative ecological information about the inside said subject by using quantities of light at individual detection positions detected by said light detection means, and (2) further comprising a step of preparing wire frame image of said subject as the three-

dimensional morphological image of said subject is considered conventional in the art as evidenced by the teachings of Macvicar et al. (US 5,215,095) and Culver (US 4,417,591).

The Macvicar et al. patent teaches the step of preparing a topographic image indicative ecological information about the inside said subject by using quantities of light at individual detection positions detected by said light detection means. Moreover, the Culver patent teaches the step of preparing wire frame image of said subject as the three-dimensional morphological image of said subject.

Based on the above observations, for a person of ordinary skill in the art, modifying the method disclosed by Shahidi, with the above discussed enhancements would have been considered obvious because such modifications would have a great effect during neurosurgery to permit more accurate identification of tissue areas.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F. Ramirez whose telephone number is (571) 272-8685. The examiner can normally be reached on (Mon-Fri) 7:30 - 4:00 p.m.

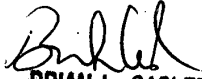
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JFR
04/13/06


BRIAN L. CASLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700